CAVES IN OKLAHOMA

EXPLORING A LEGEND - JESTER CAVE II

The last issue of the OKLAHOMA UNDERGROUND had the first installment on Jester Cave and its many legends. We made some rather lighthearted remarks about several of its legendary stories. We were "jesting at Jester" which may have been somewhat dumb! Laughingly we spoke of "outlaw treasure", "the mine" and "over ten miles of passages.

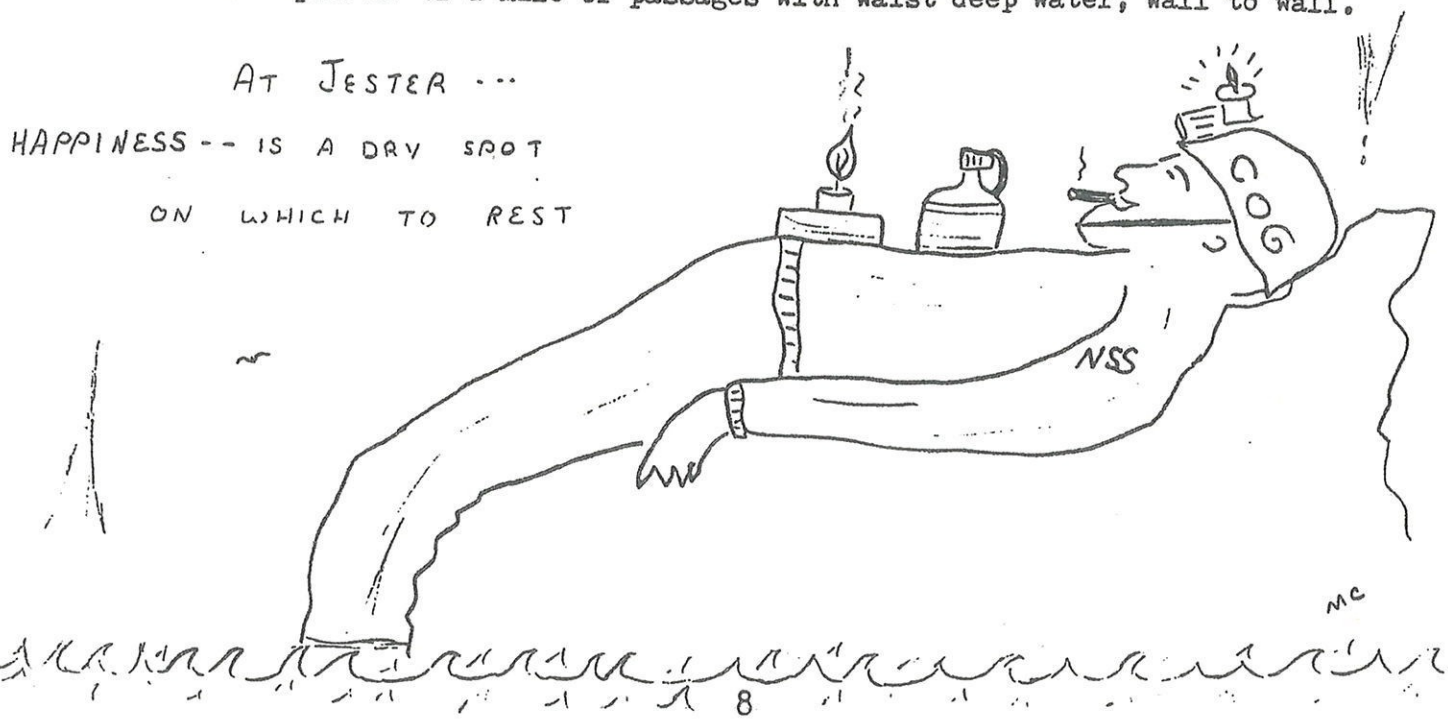
As far as we know, Jester is now considered to be America's longest gypsum cave. We have mapped over two and one-half miles of its reputed ten miles, and we have twenty side passages left to check out by our fabulous mapping team - captained by Gene Martin.

Furthermore, our research department found that Frank James and his wife (Ann) once lived at Fletcher, Oklahoma. This was prior to their moving back to Missouri and Frank's death in 1915. Robert James sold the house to the Gossetts who in turn gave it to their son-in-law, William Rother, It also appears very likely that the infamous Jessie James gang did actually operate in the old Greer County during the years between 1870 and 1880.

To give a simple discription of Jester would indeed be difficult, but, we are going to attempt to do so, anyhow. Please forgive our lack of cave terms during the following. We have had so many projects - and not enough time, as per usual.

Jester has a north-south running main passage, that very much resembles a low flooded subway tunnel. A continuous flow of water courses through and is partially responsible for much of our mapping teams' discomfort, especially this last winter. If it were not for some multilevel development of passages, and features of a phreatic zone solution nature observed in several large breakdown rooms, this cave would certainly appear to be a classic example of vadose development. However, these features indicate that a more detailed study of the speleogenesis of gypsum caves will be in order before a completely acceptable hypthesis can be formed. The theory of complete vadose water formation does not blend well with the evidence presented here of features of phreatic solution origin with later modification by vadose waters.

Incidentally, over 1½ miles of the 2½ miles surveyed are in this main passage. Another 2000 feet is im parallel passages. There is over a mile of walking passage, and close to a quarter of a mile of passages with waist deep water, wall to wall.



Some skeptical cavers would call it a wet cave. But it is not wet enough to use a boat. Over and beyond the call of duty, Jester Cave provides ten entrances which makes it handy to reach or avoid certain sections of the cave.

As mentioned previously, the cave has several rooms. We have found five nice sized rooms and several smaller ones. One room has extremely unique and beautiful walls of pure white gypsum that are "fluted". This is somewhat rare in gypsum, as far as we know. Many of the rooms are filled with breakdown and some with debris and fill. Two types of upper passage development, indicative of phreatic solution and vadose water action can be found in several locations in the cave, usually, although not always, leading off from the larger rooms.

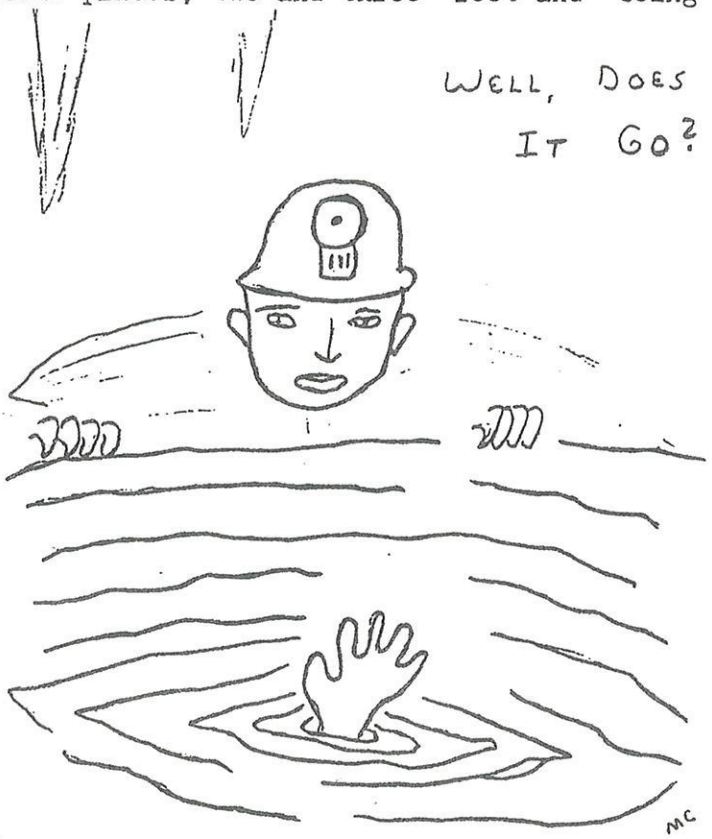
The biology of this cave, and a study of its ecology will require a detailed study over a long period of time. A rather safe ecological classification of inhabitants would be trogloxenic. Many species (epigean) are found in the cave due to floods washing in snakes, mammals, insects, etc., from the many sinkholes feeding into the cave from the surrounding territory.

The cave is a major hibernation site for the cave myotis (Myotis velifer) Three species of bat occupy the cave during the winter. One, we believe, stays the year around and we have tentatively identified it as the big brown bat (Eptesicus fuscus) We have nicknamed this bat the "great bat", due to his size in comparison with the other bats usually seen in gypsum caves. We have seen one lone pipistrel (Pipistrellus hesperus), early last fall at the north end of the cave.

The geology of Jester will be rather brief. It is located in a finger of a ridge which extends northeastward into Oklahoma from the southwest. The gypsum outcrops many places. The ridge has escarpments facing east from 50 to 200 feet in height. The taller ridges are cavered by the highly eroded gypsum and dolomite members of the Cloud Chief formation. However most of the larger passages in Jester are found in a center member of the Blaine formation, El Reno group, Guadalupean series, of Permian age. Detailed sectin studies of this area of the Blaine have not been made, but the cave is primarily formed in members corresponding roughly to the Medicine Lodge and the Nescautanga of northwest Oklahoma. Dolomite layers in this area are thicker than farther north, reaching in some places, two and three feet and being occasionally visible in the cave.

Although the cave has undoubtedly been greatly modified by the action of the stream flowing through it, it also has features that are clearly remnants of phreatic solution.

Now we promised last issue that we would give forth with some additional information on the mine. Unfortunately we are unable to disclose the secret of the mine or its lone miner at this time. After all, it is a secret. We might say that the miner might have been one type of Irish who immigrated here, and sought to bury his pot of gold, rather than to extract gold. If you doubt this we suggest that you take a look at the wee tunnel with its track. One look and you will be thoroughly convinced. With that thought we will conclude our saga of Jester, the longest gypsum cave in the United States.



Martin Collins
NSS 10165